

## Assumptions used in Nova's Calculator

Below is a brief summary of the assumptions that was used in the carbon footprint calculation. Some of the assumptions are based on people living in South Africa- therefore care should be taken to use this calculation in other parts of the world.

An explanation on how these assumptions were applied will follow soon.

	Value	Units
<b>Electricity</b>		
CO2 Emission factor from Eskom	1.03	kWh
Electricity price per kWh	1.15	R/kWh
LP GAS	1.492	CO2e/l
1 Kg of LPG	1.98	l
Wood	1.906	CO2e/kg
1Kg of Carbon	3.66	CO2e
Wood carbon content	0.5	Fraction
Charcoal carbon content	0.7	Fraction
Charcoal		
Coal (Domestic)	2.8814	CO2e/kg
<b>Transport</b>		
Diesel	2.672	CO2e/l
Petrol	2.322	CO2e/l
Petrol		
No vehicle	0	
Small engine (< 1.4 litre)	0.17411	CO2e/km
Medium engine (1.4 – 2.1 litres)	0.216	CO2e/km
Large engine (> 2.1 litres)	0.30051	CO2e/km
Diesel		
No vehicle	0	
Small engine (< 1.4 litre)	0.14689	CO2e/km
Medium engine (1.4 – 2.1 litres)	0.18268	CO2e/km
Large engine (> 2.1 litres)	0.24717	CO2e/km
Flights		
Average Shorthaul	0.09797	kg CO2e per pkm

Average Longhaul	0.11431	kg CO2e per pkm
Average (Short & Longhaul)	0.10614	kg CO2e per pkm
MiniBus Taxi Emissions Factor	0.04554	kg CO2eq/pkm
Train	0.0773	kg CO2eq/pkm
Public Bus	0.13514	kg CO2eq/pkm
<b>Waste</b>		
Household waste per person per day		
Low Income	1.3	kg
High income	2	kg
Rubbish bags per wheelie bin	4	number
Wheelie bins	60	kg
Refuse bags	15	kg
No waste	0	kg
MSW carbon content	0.27	Fraction
Per capita GHG emissions South Africa	9.25	CO2e/capita
Price per VER	150	Rand